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ABSTRACT

A study was conducted in the Allied Health Division (AHD) at Spartanburg Technical College to determine the effects of an Orientation-Advising (O-A) Program on the rate of student attrition. The O-A Program consisted of one all-day orientation and advising session, and individual advising sessions with counselors and faculty members throughout the year. Groups studied included all 198 new students enrolled in the AHD diploma and degree programs during the academic years 1976-77 and 1977-78. The O-A Program was initiated in the fall of 1977, and comparison of enrollments during these two years illustrated the difference in attrition before and after program implementation. Overall rate of attrition in the AHD decreased from 33% to 30%, and the majority of individual departments within the division also experienced decreases in attrition rate percentages in the year after implementation of the O-A Program. However, utilization of the Chi Square procedure revealed that no statistically significant difference existed between the two attrition rates. This report includes a discussion of the multiple factors that might contribute to student attrition, presents materials used in the orientation program, and lists recommendations for further evaluation. (DR)

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THE EFFECT OF AN ORIENTATION-ADVISING PROGRAM ON ATTRITION RATES OF THE ALLIED HEALTH DIVISION AT SPARTANBURG TECHNICAL COLLEGE

JC 790 370

by

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A PRACTICUM PRESENTED TO NOVA UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF EDUCATION

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ABSTRACT

In the past there has been a high student attrition rate in the Allied Health Division at Spartanburg Technical College. The attrition rate decreased after the implementation of an Orientation-Advising (O-A) Program. The purpose of the practicum was to test the hypothesis that the O-A Program contributed to reducing attrition.

The research design was quasi-experimental. The groups studied included all of the new students enrolled in the Allied Health Division diploma and degree programs during the academic years 1976-1977 and 1977-1978. The Chi Square Test of Significance was used to analyze the data. The acceptable level of significance was .05. The treatment consisted of one all day orientation and advising session with the advising sessions being continued throughout the quarters.

The enrollment figures indicated a percentage difference in attrition rates between the two groups under study; however, the utilization of the Chi Square Test of Significance did not reject the null hypothesis--there was no significant difference in attrition rates before and after the O-A Program was implemented.

Recommendations resulting from the investigation were: 1) continue to evaluate and revise the orientation procedures; 2) implement a more effective student advising program; 3) expand the research of attrition rates to all divisions and maintain the data on a continuous basis; 4) develop a procedure to identify and assist the dropout-prone students; 5) determine the reasons why students dropout of Spartanburg Technical College and, also, determine prophylactic measures which can be incorporated into policies, practices and procedures of the College; and 6) establish an Institutional Research Department.

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INTRODUCTION

There is a high student attrition rate in the Allied Health Division at Spartanburg Technical College especially during the first and second quarters of each academic year. An extensive orientation and advising program was instigated by the divisional dean with the express intent of altering the dropout statistics. The high attrition rate had seemed to decrease to some degree after the implementation of the extensive Orientation and Advising Program so the divisional dean decided to investigate. The purpose of the practicum was to determine if there was a decrease in the attrition rate.

The research design was quasi-experimental. The groups studied included all of the new students enrolled in the Allied Health Division diploma and degree programs during the academic years 1976-1977 and 1977-1978. These academic years were chosen for the study because the Orientation-Advising Program was begun in the fall of 1977 and by comparing these two academic years the difference in attrition before and after program implementation could be illustrated. The number of students involved in the study was one hundred and ninety-eight (198).

The null hypothesis: There is no difference between attrition rates of students who have not had the Orientation-Advising Program and those who have. The Chi-Square Test of Significance was utilized to treat the data to determine if there was a significant difference in the attrition rates between the two groups. The acceptable level of significance was .05.

According to Astin (1976), dropping out of college has been a much researched topic, but the research has not clearly revealed which

factors influence students to leave or how these factors might be controlled by those with vested interest in preventing students from leaving. The categories of decision makers who have an interest in the dropout problem and whose positions can alter the decision making course are administrators, educational planners and policy makers at state and national levels; students; and guidance counselors.

Students' chances of finishing can be influenced by a wide range of institutional practices: recruitment and admission policies; residence requirements; financial aid; selection of students for residence halls; availability of jobs on campus; grading practices; granting leaves of absence; transfer policies; and establishment of work study programs (Astin, 1976).

It has been found that a well planned orientation program can be a great asset in helping students adjust to their new role, in reducing attrition rates and in serving as a diagnostic function to identify those students who may need remedial or tutorial assistance to help them over educational deficiencies (Litwack et al., 1972).

A goal of nursing educators (Litwack et al., 1972) as well as the Allied Health Division at Spartanburg Technical College is to increase recruitment enrollment and retention of students and at the same time reduce the number of students who are unsuccessful in the respective programs. Faculties and administrators are concerned not only with improving their recruitment and educational programs but are also concerned with reducing the number of dropouts through a better selection process and better student service programs.

According to the literature review by Litwack (et al., 1972) there is support for a well-functioning guidance and counseling

program in order to help students adjust and remain in school. Various other studies (Katzell, 1967; Rottkamp, 1969) have shown that the level of satisfaction rather than stresses affect attrition rates and that there is a need to prevent disillusionment for the beginning student. There is an indicated need for more accurate recruitment and orientation programs, more complete guidance and counseling services and more creative and exciting academic programs as the best means of significantly reducing student loss of interest and satisfaction.

Before the academic year began, an Orientation-Advising Program was conceived by the divisional dean as a means of enhancing the retention of students in the Allied Health Division. The Orientation-Advising Program, as conceived, was implemented and the attrition rates before and after the program were analyzed to determine the possible effectiveness of the treatment procedure.

The treatment procedure began with an all day orientation and advising session conducted prior to registration. This included a general college session as well as an Allied Health Division session. Copies of the program agendas are appended. (See Appendices A and B.) After the orientation programs, the faculty members had individual sessions with each student. The purpose of these individual sessions with each student was to get acquainted and discuss personal goals and objectives with the purpose initially of developing an effective student-teacher rapport with the expanded goal of guiding and counseling the student throughout the entire course of study.

The faculty was instructed to schedule periodic advising sessions with each student in an effort to keep communication channels open to discuss any academic problems of the student and to counsel and advise concerning other problems, personal, financial and otherwise that the student or instructor felt needed attention.

The enrollment figures as indicated for each specific quarter in the research study were tabulated to determine percentage rates of attrition.

BACKGROUND AND SIGNIFICANCE

Dropping out of college has been a much researched topic as indicated by the works of Astin (1976), Hahn (1974), Colozzi (1973), Gum (1973), Pappas (1975), Zwerling (1976), Moore (1970), and many others.

A quasi-experimental design was utilized in the research project. Although randomization is the method of choice in experimentation according to Glass and Stanley (1970), quasi-experimentation, as devised by Campbell and developed further by Campbell and Stanley, seems to offer a middle ground between controlled experiment of the laboratory variety and the uncontrolled experiment of nature. Campbell and Stanley encourage the utilization of such quasi-experiments and an increasing of the awareness of the kinds of settings in which opportunities to employ them occur (Glass and Stanley, 1970; Campbell, 1966).

Thus the applicability of the research on attrition rates and the quasi-experimental nature of testing the effectiveness of the Orientation-Advising Program was indeed appropriate to the Applied Educational Research and Evaluation Module.

Dropping out of college has been a much researched topic; however, the research has not clearly revealed which factors influence students to leave or how these factors might be controlled. The categories of decision makers who have an interest in the dropout problem are administrators, educational planners and policy makers at state and national levels; students; and guidance counselors (Astin, 1976).

Additional findings have revealed that decision makers in many cases are not convinced of importance of retention since they still make decisions without regard for the information or evidence available. Also, in many instances departmental goals were in direct conflict with institutional goals which in itself would hamper the decision making progess (Ceniceroz, 1974).

Recruitment and admission policies: residence requirements; financial aid; selection of students for residence halls; availability of jobs on campus; grading practices; granting leaves of absence; transfer policies; and establishment of work study programs are all factors which can influence a student's chances of completing a course of study (Astin, 1976).

In the first place, according to Cross (1972), students in general would like college to be a pleasant experience where people are friendly and helpful. When high school seniors were asked to select descriptions of colleges they would like to attend 53 percent expressed preference for the college description which read:

> "at this college there are many activities, and students are encouraged to take part. The professors go out of their way to make sure that students understand the classwork and everyone is friendly on campus."

The rise of student consumerism and accountability is necessitating some consideration of what students are getting from their education and from courses of instruction in particular. As related to the domain of student satisfaction several studies have indicated that students who are generally congruent with their institutional environment report the highest degree of satisfaction with respects of the college experience; therefore, students who are incongruent with their environment will be more dissatisfied and have higher attrition rates from college than the

students who are congruent with environment (Morstain, 1977). Those students perceiving the environment more favorable are more likely to remain (Coppock, 1971). The Instructional Program and Student Services Program are most apt to help determine a student's success in the academic program and a student's feeling of belonging on campus (Ceniceroz; 1974).

While it has become fashionable to talk of stopping out and the supposedly therapeutic value for certain students of dropping out, according to Astin (1976), the subject of the "good" versus the "bad" dropout is inappropriate. He says that all of those involved should want to increase the probability that entrants will graduate so they must select those actions associated with persistence and avoid those associated with dropping out.

A major factor in the present attention being given to dropouts is declining enrollment which is being experienced by most colleges to some extent. While traditionally recruitment has been the principal means of keeping enrollment up, an equally promising means to approach the problem is to reduce dropout rates.

It had been found that a well planned orientation program can be a great asset in helping students adjust to their new role, in reducing attrition rates and in serving as a diagnostic function to identify those students who may need remedial or tutorial assistance to help them over educational deficiencies (Litwack et al., 1972).

A major goal of the Allied Health Division at Spartanburg Technical College is to increase the retention of students and at the same time reduce the number of students who are unsuccessful in the respective programs. Faculties and administrators are concerned not only with improving their recruitment and educational programs but are also concerned

with reducing the number of dropouts through a better selection process and better student service programs.

According to the literature review by Litwack (et al., 1972) there is support for a well-functioning guidance and counseling program in order to help students adjust and remain in school. Various other studies (Katzell, 1967; Rottkamp, 1969) have shown that the level of satisfaction rather than stresses affect attrition rates and that there is a need to prevent disillusionment for the beginning student. There is an indicated need for more accurate recruitment and orientation programs, more complete guidance and counseling services and more creative and exciting academic programs as the best means of significantly reducing student loss of interest and satisfaction.

In a study conducted by Colozzi (1973) large proportions of those withdrawing were doing well academically. The dropouts were found to have no specific expectations from attending college and expressed concern about the lack of academic challenge. These types of problems can be addressed by means of effective orientation and advising programs.

Lawry's study (1973) emphasized the importance of adequate counseling services. As important as counseling services are to the retention of students, counseling as such has less impact on career decisions than has association with instructors. New students and traditional students are equally influenced by instructors (Cross, 1972). Pappas (1975) also, points out the importance of the teacher in the dropout rate.

In a study conducted by Obler, Francis and Wishengrad (1971), utilization of a team approach in which faculty offer all services to the same body of students proved to be an effective advising arrangement. The experimental faculty was trained to offer specialized counseling, tutorial and personal services in addition to their instructional function. A team consisted of four instructors who advised fifty students. The team approach was effective

in leading to higher academic achievement, greater accumulation of college credits, easier subjective integration to the college for the subjects than for the control groups. Better preparation for college adjustment and the employment world was indicated and the project was helpful in eliminating the "revolving door" failure syndrome. Creamer and Rippy (1977) also recommend the use of the team approach to include administrators, teachers and counselors.

In another study conducted at Drake University (1974) the impact of improved advising was demonstrated. A group of exit-prone students received regular counseling from advisors who were part of a humanistic advising training program while a cohort group did not receive such advising. The overall effect of the concentrated advising for the exit-prone students appeared to be twofold. It prolonged the enrollment of students who might normally be expected to withdraw during the freshman year, and it improved the return rate at the beginning of the second year for the class as a whole.

The effectiveness of group counseling has further been demonstrated by Brown (1972). Group counseling was shown to lower attrition rates of freshmen. Attitudes are important in the ability to remain and those attitudes can be affected through group classes and those who do not seek help can be helped by selecting them for self-awareness classes.

"Dropout" is a catch all word into which are lumped all those who discontinue their education and among this group is the "failout." This term implies that a student got failing grades on some or all subjects and therefore failed some of all of his courses. This is not necessarily so because many students are failed out without ever actually

failing a course because of the requirement at most colleges that a specific cumulative grade point ratio (GPR) is required to continue in a program (Pitcher and Blaushild, 1970).

The term dropout is only one term among many used in the literature to describe the student who terminates or leaves the college scene and likewise many terms are used to designate the student who remains on the college scene. Some examples are "dropaways" (Cooper, 1974); "defaulters" (Dult, 1971), "leavers" (Bradley and Lehmann, 1975), "continuees" (Hoffman, 1971), "stayins" (Hannah, 1969; Jurgela, 1970) and "persisters" (Robinson, 1971).

Attrition rates in community colleges, even when properly defined and measured, are high. Various studies indicate that somewhere between 30 and 70 percent of all students who enter community colleges become part of an attrition statistic, that is they do not achieve the goal they set out to accomplish. Attrition is not one problem but a colony of interacting factors which represent a tangled situation in which it is increasingly difficult to identify discrete causal factors and discrete solutions (Moore, 1976).

Findings by various researchers such as Eddy (1970), Jackson (1976), and McDermott (1975), suggest the improbability of discovery one or two simple and absolute reasons to explain attrition rates. However, some studies (Eddy, 1970; Cross, 1972) have shown that high school rank and college GPR were discriminators between attrition and survival--and Astin (1976) and McDermott (1975) say that the student's past academic record and ability are by far the greatest predictive factor in attrition.

But not all who withdraw do so because of academic reasons. Financial difficulties, family problems, poor health, disappointment with programs

of study, poor student-mentor relationships and others account for a significant number of withdrawals (Gragg and Stroud, 1977; Gum, 1973; Jackson, 1976; Gilbert, 1976; and Bradley, 1975). According to Pfeifer's (1976) literature research, incompatibility of students with the college climate may lead to high drop out rate and Hahn (1974) says that investigations have shown that the campus environments can indeed, be managed in such a way as to enhance student retention.

The findings of Jackson (1976) indicated a greater tendency for younger students in general and blacks in particular to become attrition statistics after the first year of college. As for the disadvantaged student, Klindienst (1971) says that this group must have special attention toward closer student-instructor interaction and development of self concept and attention toward assistance in organized learning patterns in order to lessen their chances of becoming an attrition statistic.

Studies have been conducted in an effort to determine personality differences between dropouts and persisters (Robinson, 1971; Astin, 1976; and Hannah, 1969). Robinson (1971) indicates that there is no significant difference between dropouts and persisters by personality. However, Hannah (1969) did an extensive investigation of personality traits of college dropouts and stayins using personality inventories along with a compilation of Scholastic Aptitude Test scores and concluded that:

1. Students who are more diverse, complex, impulsive, aggressive and anxious tend to withdraw from college.

2. Less integrated, more anxious, altruistic, religiously liberal students more frequently withdraw from the friendly, supporting, sympathetic environments which place less emphasis on the search for personal meaning.

3. Leavers from the more vocational or professional colleges tend to exhibit greater interest in self-understanding, and relatively little in practical achievement.

4. Students who withdraw from the liberal experimental college are highly sensitive, withdrawn, artistic individuals who exhibit hostility, and are less practically oriented.

Heath (1975) asks the questions - Why study college dropouts? He cites three reasons (1) the survival of many colleges depends upon reducing the number of students who drop out (2) a need to open our understanding of how to help students continue their growth and (3) educators need to learn to educate more effectively by examining their "failures."

Where attrition is concerned, the strategy and policies must be prophylactic. Causal factors can be isolated which prevent student from achieving their goals, and decisions can be made on the basis of preventing the results of those factors. In the community college, the prophetic approach will not work. Effort, time and money should not be spent in determining who will or who will not succeed. The assumption should be that anyone can and everyone should be able to meet his educational goals and the resources of the institution should then be organized to facilitiate that (Moore, 1976).

According to McDermott (1975), no comprehensive models from the literature have produced a substantial decrease in attrition rates; however, the literature on retention indicates that intervention techniques appear to be most researched and potentially positive of the tools for increasing retention.

An indepth study of attrition rates--causes and prevention--had never been conducted at Spartanburg Technical College. By beginning with the research project involving the Allied Health Division, valuable information was obtained which can be expanded into other areas of research to assist in coping with the attrition problems of the division and ultimately the college.

Before the academic year began, an Orientation-Advising Program was conceived by the divisional dean as a means of enhancing the retention of students in the Allied Health Division.

Investigating the attrition rates of the Allied Health Division was possible because enrollment and dropout records were available, orientation and advising information was available, and cooperation from faculty, staff and administration was assured. The relevance and need for an investigation which could lead to reduced attrition rates was expressed by the divisional dean and the Dean of Instruction and the importance of maintaining adequate enrollment figures is a constant concern of the President of the college. A letter from the Dean of Instruction addressing the attrition problem and the need for an investigation is appended. (See Appendix C.)

The process involved comparing the enrollment figures at the beginning of the first and third quarters for the academic years 1976-1977 and 1977-1978 and describing the Orientation-Advising Program as it related to the retention of students.

A number of basic assumptions were present. They are as follows:

1. The Allied Health Division students under consideration in the research were reasonably homogeneous.

2. Even though there were some commonalties of entrance requirements and procedures there were some differences in the entrance requirement

among the degree programs, the diploma programs and the certificate program which would tend to have an equalizing effect when spread through the division as related to academic performance.

3. All new students within the division were scheduled for orientation-advising sessions.

4. All students within the division had equal access to the student services as made available throughout the college such as financial aid, counseling services, Student Government Association functions, and so on.

There were circumstances and conditions which placed some limitation on the study. These were:

1. The difference in entrance requirements among the programs could possibly have an effect on generalizability within and outside the division as it relates to reasons for withdrawal; however, informal observations had indicated that withdrawal for strictly academic reasons had been relatively low.

2. The active participation in student selection and counseling by the Allied Health Division counselor could restrict generalizability in various ways especially since some other divisions have different admission counselors.

3. The varying expertise of the individual instructors as advisors could effect the generalizability within the program and division and also externally.

4. The fact that only two groups (two years) were compared was not enough to allow adequate generalizability.

PROCEDURES

The research project was quasi-experimental in nature. The null hypothesis: There is no difference between attrition rates of students who have not had the Orientation-Advising Program and those who have. The Chi-Square Test of Significance was utilized to treat the data to determine if there was a significant difference in the attrition rates between the two groups. The acceptable level of significance was at the .05 level. The groups studied included all of the new students enrolled in the Allied Health Division diploma and degree programs during the academic years 1976-1977 and 1977-1978. These academic years were chosen for the study because the Orientation-Advising Program was begun in the fall of 1977 and comparing these two academic years illustrated the difference in attrition before and after program implementation. The number of students involved in the study was one hundred and ninety-eight (198).

The variables and operational definitions were as follows:

1. Attrition rates (context variable) - the number of students withdrawing from the curriculum in which they originally enrolled.

2. Orientation program (assessment variable) - introduction to the new students of all the programs in the Allied Health Division including divisional rules, regulations, procedures, tour of facilities and so on.

3. Advising program (assessment variable) - individual sessions with each student beginning on the first day of orientation to get acquainted, discuss personal goals and objectives with the original purpose of developing an effective student-teacher rapport and then expanding the advising sessions to maintain that rapport throughout the entire course of study involving both academic and personal advising as needed.

There were several assumptions present in the study. They were:

1. All of the Allied Health Division students were reasonably homogeneous.

2. All students within the division were scheduled for orientation-advising sessions and all had equal access to the student services as made available throughout the college such as financial aid, counseling services, Student Government Association functions, and so on.

3. Even though there were some commonalities of entrance requirements and procedures there were some differences in the entrance requirements among the degree programs and the diploma programs which would tend to have an equalizing effect when spread through the division as related to academic performance.

Some factors which placed limitations on the study were:

1. The fact that only two groups over a period of two years were compared in the study was not adequate coverage to allow generalizability of the results.

2. The difference in entrance requirements among the programs could possibly have an effect on generalizability within and outside the division as it relates to reasons for withdrawal; however, informal observations had indicated that withdrawal for strictly academic reasons had been relatively low.

3. The varying expertise of the individual instructors as advisors could effect the internal and external generalizability.

4. The active participation in student selection and counseling by the Allied Health Division counselor could restrict generalizability in various ways especially since some other divisions have different admission counselors.

Before the academic year began, an Orientation-Advising Program was conceived by the divisional dean as a means of enhancing the retention of students in the Allied Health Division. The Orientation-Advising Program or treatment procedure, as conceived, was analyzed to determine its possible effectiveness in reducing attrition.

The treatment procedure consisted of an all day orientation and advising session conducted prior to registration. This included a general college session as well as an Allied Health Division session. Copies of the program agendas are appended. (See Appendices A and B.) During the Allied Health Division orientation session the students were introduced to the faculty and staff of the Allied Health Division. The department heads in each curriculum area gave a brief welcome and program description to the entire group and the divisional dean presented a copy of the Allied Health Division Handbook to each student and reviewed the divisional rules, regulations and procedures. After the divisional session there was a divisional tour with departmental exhibits and then group sessions in which the students were further familiarized with the specific program they had chosen. During the departmental sessions, the instructors stressed their role as advisors to the students and arranged to meet with each student in an individual advising session. The purpose of these individual sessions with each students was to get acquainted, discuss personal goals and objectives with the purpose initially of developing an effective student-teacher rapport with the expanded goal of guiding and counseling the student throughout the entire course of study.

The faculty was instructed by the divisional dean during a specific divisional meeting to schedule periodic advising sessions with each student in an effort to keep communication channels open to discuss any academic problems of the student and to counsel and advise concerning other problems, personal, financial and otherwise, that the student or instructor felt needed attention. The rationale was that with periodic advising sessions, and others as needed, the faculty could foresee difficulties which the student might encounter and hopefully take prophylactic measures as soon as possible. A copy of the advising schedule sheet is appended. (See Appendix D.)

The faculty was directed by the divisional dean throughout the first and second quarters to utilize the student-advisor relationship as discussed and scheduled and to document each session on the advising schedule form. At the end of the second quarter the faculty submitted to the divisional dean a copy of their first and second quarter advising schedules.

The enrollment figures as obtained for each specific quarter in the research period were tabulated to determined percentage rates of attrition. The results are presented below in the Results section. The Chi-Square Test of Significance was used to analyze the data.

RESULTS

The enrollment figures at the beginning of the first and third quarters for the academic year 1976-1977 and 1977-1978 were gathered and are indicated below along with attrition percentages.

The total number of new students who enrolled in the Allied Health Division at the beginning of the first quarter of the academic year 1976-1977 was ninety-four (94). The total number enrolling at the beginning of the third quarter was sixty-three (63). The resultant attrition rate for the division for that time period was thirty-three percent (33%).

1976-1977

PROGRAM	ENROLLMENT FIRST QUARTER	ENROLLMENT THIRD QUARTER	ATTRITION RATE
Radiologic Technology	12	11	8%
Medical Laboratory Technician	25	15	40%
Dental Assisting	19	9	53%
Operating Room Technician	17	9	47%
Child Care Assistant	21	19	10%
TOTAL	94	63	33%

The total number of new students who enrolled in the Allied Health Division at the beginning of the first quarter of the academic year 1977-1978 was one hundred and four (104). The total number enrolling at the beginning of the third quarter was seventy-three (73). The resultant attrition rate for the division for that period was thirty percent (30%).

1977-1978

PROGRAM	ENROLLMENT FIRST QUARTER	ENROLLMENT THIRD QUARTER	ATTRITION RATE
Radiologic Technology	13	10	23%
Medical Laboratory Technician	25	19	24%
Dental Assistant	22	14	36%
Operating Room Technician	16	11	31%
Child Care Assistant	28	19	32%
TOTAL	104	73	30%

The enrollment figures were analyzed using the Chi-Square Test of Significance and are presented in the format as illustrated by Barton and Mines (1977).

TESTING THE SIGNIFICANCE OF THE DIFFERENCE BETWEEN TWO SAMPLE PROPORTIONS

Chi Square (X^2)

Problem: At the beginning of the first quarter 1976-1977 there were 94 new students enrolled in the Allied Health Division at Spartanburg Technical College. At the beginning of the third quarter there were 63 students enrolled. At the beginning of the first quarter 1977-1978 there were 104 new students enrolled. At the beginning of the third quarter there were 73 students enrolled. Is there any significant difference between the attrition rates of the two academic years as a result of the Orientation-Advising Program which was implemented at the beginning of the second year?

Procedure:

1. State the null hypothesis (H_o):

   There is no difference between the attrition rates of students who have not had the Orientation-Advising Program and those who have.

   $$H_o: \pi_1 = \pi_2$$

2. State the alternative hypothesis (H_a):

   $$H_a: \pi_1 \neq \pi_2$$

3. Establish the desired level of significance:

   $$\alpha = .05$$

4. Calculate the degrees of freedom:

   $$df = (n - 1)(c - 1)$$

   $$df = (1)(1)$$

   $$df = 1$$

5. Establish the critical X^2 value:

   By referring to a table of critical values of Chi Square, it is found that for 1 degree of freedom the critical X^2 value at = .05 is 3.841. Therefore, reject H_0 and accept H_a if X^2 is 3.841.

6. Apply appropriate formula:

$$X^2 = \sum \left[\frac{(f_o - f_e)^2}{fe} \right]$$

   Where:

   f_o = observed frequency

   f_e = expected frequency

7. The procedure for calculating the X^2 value is as follows:

   . Construct a contingency table of observed frequencies:

CLASSIFICATION OF OBSERVED ATTRITION RATES BEFORE AND AFTER ORIENTATION-ADVISING PROGRAM

f_o

Classification	Withdrawal	Persisted	Total
Before O-A Program (1976-1977)	31	63	94
After O-A Program (1977-1978)	31	73	104
Total	62	136	198

   . Construct a contingency table of expected frequencies:

EXPECTED ATTRITION RATES BEFORE AND AFTER ORIENTATION - ADVISING PROGRAM ASSUMING INDEPENDENCE OF CLASSIFICATION

f_e

Classification	Withdrawal	Persisted	Total
Before O-A Program (1976-1977)	29.43	64.57	94
After O-A Program (1977-1978)	32.57	71.43	104
Total	62.00	136.00	198

. Calculate X^2

CALCULATION OF CHI SQUARE

Cell	Observed Frequencies f_o	Expected Frequencies f_e	$f_o - f_e$	$(f_o - f_e)^2$	$\frac{(f_o - f_e)^2}{f_e}$
Withdrawal Before O-A	31	29.43	1.57	2.46	.08
Persisted Before O-A	63	64.57	-1.57	2.46	.04
Withdrawal After O-A	31	32.57	-1.57	2.46	.08
Persisted After O-A	73	71.43	1.57	2.46	.03
				X^2 =	.23

8. State your conclusion

Since the calculated value of χ^2 does not exceed the critical value of X^2, the null hypothesis cannot be rejected; there is no significant difference between the attrition rates before and after the Orientation-Advising Program.

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Even though three of the five programs studied in the Allied Health Division showed a definite decrease in the attrition rate percentages after the implementation of the Orientation-Advising Program, the utilization of the Chi Square procedure revealed that there was no significant difference overall between the attrition rates before and after the O-A Program.

It was expected that the evidence in favor of the O-A Program would be clearly indicated by the results of the study; however, it is well recognized that many factors do indeed effect attrition rates. As indicated by the numerous research studies on attrition no single causal factor can be isolated and no single remedy to reduce attrition has been determined.

According to Pitcher and Blaushild (1970) when people are confronted with a problem, there is a strong temptation to look for a single "reason" and "the answer." The problem of college attrition is a consequence of a number of interacting factors.

A number of studies have shown that advising-counseling-orientation does have a positive effect on reducing attrition rates in specific situations (Brown, 1972; Lawry, 1973; Colozzi, 1973; Litwack et al., 1972).

The results of this study indicate that the Orientation-Advising Program should be further scrutinized, refined and evaluated. In this particular situation, none of the faculty members who acted as advisors

had received any formal training as counselors or advisors. Bradley and Lehmann (1975) and others recommend educational training for advisors and recommend that policy makers promote procedures that make the changing of advisors within the general college setting easier for the student. One definite implication from the study is that the faculty, as well as administration and staff, should be trained to be effective advisors. Creamer and Rippey (1977) advocate the utilization of In-Service programs to equip professionals (administrators, faculty and counselors) in all areas of the student development process. An Allied Health Counselor Training Program Trainer's Manual (1975) is available which could be utilized to train counselors in the area of Allied Health. Advising and counseling are terms which are used interchangebly at times, however as a matter of definitions some distinction is needed. According to Dressel (1976) advising is usually a responsibility assigned to faculty members to assist students (individually or in small groups) in selection of courses and fulfillment of degree requirements, to monitor academic performance and to respond to students' concerns or questions about electives, major, preparation for exams, study habits, math deficiencies, reading difficulties, career development and personal problems. Few faculty members have any special competencies beyond assisting in their own field. Counselors have specialized training and assume a responsibility for facilitation of personal development including dealing with personal, emotional, social and career problems as well as academic matters. Persons with problems which interfere with functioning but are not disabling make up a significant portion of the counseling clientele.

If an extensive evaluation of advising is to be undertaken, there are numerous types and sources of evidence and ways of collecting it. The sources of evidence include the students, the advisers themselves, colleagues,

department chairmen, academic deans, personnel deans etc. Students, by using rating forms or by interviews, can provide information on adviser contacts, on nature and worth as well as satisfactions, problems and deficiencies. Advisers can report on contacts, their difficulties and satisfaction as advisers. Colleagues and administration through their observations, awareness of student comments and overall appraisal of the cumulative effort of individual faculty members. Unobtrusive measures such as errors and changes in enrollment, requested changes of advisers, delays or failures in completing curriculum requirements, use by advisers of special services etc. can be used also to assess the effectiveness of advising (Dressel, 1976).

The advising role is usually ill-defined; it has few prerogatives and is inadequately rewarded and undersupported. It is often underminded by criticism and by competing services, yet it is regarded as essential. Formative evaluation is more likely to be successful than condemnation by summative evaluation but such evaluation has to be continuing and aimed as much as altering administrative policies and practices as at the advisers themselves (Dressel, 1976).

A definite problem with the advising program in the Allied Health Division was the fact that the faculty member-advisor historically had too many advisees and because of a sheer lack of time made it difficult to do an adequate job. The advising function is a vital one but it also must be meshed with the other multitudinous duties of the faculty member who, in most cases, is also a department head.

The students in the Allied Health Division are advised by their specific department head or instructor. There is no flexibility within the division for changing advisors. There are some possible disadvantages to such a situation; however, it does allow for continuity and stability

for the student throughout the training period. Obler (et al., 1971) recommends the team approach to advising which is one possibility worthy of attention in the Allied Health Division and throughout the college to allow for better coordination and utilization of services, ideas, etc.

In respect to the Orientation component of the O-A Program, its usefulness as an effective tool in reducing attrition has been previously researched (Dressel, 1976; Litwack et al., 1976) and according to Dressel (1976), an evaluation of the orientation process in many institutions would lead to some definite reshaping. He indicates several assumptions which are as follows:

1. Orientation is a continuing process.
2. Orientation is a phase of a continuing counseling-advising process.
3. Incoming students vary so markedly that this must be taken into consideration.
4. Talking at individuals in large groups is not effective in communicating information, conveying a welcome or offering assistance.
5. For freshmen living away from home for the first time, social opportunities and friendships can be almost as important as orientation to the academic programs.
6. Parades of personalities across a platform or reception line probably are not effective as far as students are concerned.
7. Heavy testing programs are not advisable during orientation.
8. Material sent to new students prior to arrival on campus if carefully done and limited to essentials are probably more effective than materials and oral statements made after arrival.

All of these assumptions have been validated according to Dressel. Therefore, he says that a major deficiency with such orientation programs is that <u>all</u> students are told something at a time when <u>none</u> is really

concerned. This leads to the conclusion that the orientation program of the Allied Health Division and the College as well must be looked at very seriously and evaluated thoroughly for its effectiveness. This evaluation is especially important if the orientation process is viewed as merging into continued advising and counseling. Therefore a recommendation from the results of the study is that the Orientation Program of the division and college be evaluated and reconstructed as indicated.

Concerning attrition studies, Hammond (1971) developed a Retention Index (RI) from existing instruments which was found by multilinear regression item analysis to be a significant predictor of college attrition. The adoption of the R.I. could possibly be a factor (recommendation) worth considering for the Allied Health Division and throughout the College.

Gilbert (1976) recommends the utilization of the Student Flow Model (SFM) which has shown to be a valuable tool in studying attrition because it allows the plotting of student movements over a series of time thus enabling prophylactic measures to be taken to prevent attrition.

For further studies of attrition, utilization of a manual entitled A Manual for Conducting Student Attrition Studies in Institutions of Postsecondary Education (Bower and Meyers, 1976) is recommended. According to the Manual, potential specific uses of attrition studies are varied but generally they can be used to:

1. Provide information about dropouts that may lead to institutional corrective action.

2. Document the numbers and percentages who leave for reason not amenable to corrective action.

3. Build models that will allow the prediction of which and how many students will drop out.

According to Bower and Meyers (1976) it is not good to survey for only one term because dropouts between different terms differ in reasons for dropping. Nonreturning students between spring and fall terms often leave to transfer to another school while mid year and mid term dropouts more often leave for reasons such as personal, emotional and financial.

Attrition surveys are of little value if results and conclusions are not used by institutions. As the institution continues to obtain objective data concerning its students--it increases its ability to make meaningful comparisons among various groups of students and among the source groups of students over time that is, to assess change. Consequently, as institutional planners and managers have better knowledge about their students, they are able to make better, more informed decisions about student needs and plans.

In the past years institutional research has been primarily a staff function, usually reporting to an administrative office and responsible for little more than routine data collection and background information for predetermined decisions (Alfred et al., 1977). A major recommendation from the study is that an Institutional Research Department be established. More and more, as research is becoming a planning and management tool, it can serve as a pivot on the management team.

As a result of the study a number of recommendations have been summarized and made to the Dean of Instruction as indicated in the attached memorandum. (See Appendix E.) The recommendations are as follows:

1. Evaluate and revise the Orientation Procedures of the Allied Health Division and the College as indicated by the present research results.

2. Implement a more effective student advising program which in itself will require an in-service program for faculty and staff concerning advising techniques.

3. Expand the research of attrition rates to all divisions of the College and maintain the data on a continuous basis.

4. Develop a procedure to identify and assist the dropout-prone students. Consider the usage of a Retention Index (Hammond, 1971), and Astin's (1976) worksheet for predicting chances of dropping out, and a Student Flow Model (Gilbert, 1976).

5. Determine through survey methods the reasons why students dropout of the Allied Health Division, as well as other divisions of Spartanburg Technical College. Also determine the prophylactic measures, which can be incorporated into policies, practices and procedures of the College to partially solve the enrollment and retention problems.

6. Establish an Institutional Research Department to serve all divisions of the College in providing information for decision making.

Even though no one claims to have found the one reason why students drop out of college, a number of researchers have produced valuable insight into the problem itself and the results of this study further emphasize the fact that the problem of attrition is multi-faceted one.

Education throughout the world has for centuries devoted its attention toward selection. Much of the energy of teachers and administrators has been devoted to determining which students should be dropped at each major stage of the educational process (Bloom et al., 1971). With effective and in-depth studies of attrition and the analyses of continuously available data, energies can be directed toward preventing students, that is anyone who desires to be a student, from dropping out.

A study of the attrition rates of the Allied Health Division at Spartanburg Technical College and the effects of an Orientation-Advising Program on the attrition rates opened many avenues concerning attrition problems within the division and the college with the resultant realization that continued research is essential. The causes of attrition at a two-year technical college are, indeed, unique and should be investigated to provide information on the student population which will allow the Allied Health Division and the College, to be forewarned and forearmed to the extent that appropriate prophylactic measure can be incorporated into policies, practices and procedures which will allow the college to partially solve the enrollment problems by retaining present students instead of having to rely solely on the recruitment of new students.

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APPENDICES

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APPENDIX C

SPARTANBURG TECHNICAL COLLEGE

Drawer 4386 * Spartanburg, SC. 29303 * Tel. 576-5770

Joe D. Gault
President

January 15, 1978

Mrs. Karen Atkins, Dean
Allied Health Division
Spartanburg Technical College
Spartanburg, SC 29303

Dear Mrs. Atkins:

After reviewing your plan book for 1977-78, I became concerned with the attrition rate within the Allied Health Division. However, may I assure you that I have a great deal of concern with the attrition rate throughout the Institution. The purpose of this letter is to suggest that you begin to look at the causes of this attrition rate within your division and to explore various avenues that might alleviate the problem.

We must all be cognizant of the fact that the number of high school graduates lessen each year and will continue to lessen for the next several years. Therefore, it is of vital importance that we strive to maintain those students we have in our programs.

I am aware of the new orientation and continuous advisory program you began this past Fall. It might be interesting to see if your attrition rate has been less this year since the inception of this new program.

Should you decide to undertake this project, please share your results with me. If you have positive results, we could consider implementing such a program throughout the school.

If I can be of assistance in any way, I trust there will be no hesitancy on your part to contact me.

Sincerely,

SPARTANBURG TECHNICAL COLLEGE

s.

Donald W. Cameron
Dean of Instruction

DWC:bej

ALLIED HEALTH DIVISION

STUDENT ADVISING SCHEDULE

DEPARTMENT _____ QUARTER _____

INSTRUCTOR _____ YEAR _____

STUDENT'S NAME	DATE	SUMMARY OF SESSION (Purpose, Items discussed, comments, etc.)

Spartanburg Technical College

DRAWER 4386 • SPARTANBURG, S. C. 29303 • TELEPHONE 576-5770

JOE D. GAULT
PRESIDENT

MEMORANDUM

TO: Dr. Donald Cameron, Dean of Instruction

FROM: Karen Atkins, Dean of Allied Health KOA

DATE: April 14, 1978

SUBJECT: Results and Recommendations of the Attrition Studies in the Allied Health Division

A quasi-experimental research design was utilized to help determine the effect of an Orientation-Advising Program on attrition rates of the Allied Health Division. The groups studied included all of the new students enrolled in the divisional diploma and degree programs during the academic years 1976-1977 and 1977-1978. To test the null hypothesis, the Chi Square Test of Significance was utilized to treat the data with the acceptable level of significance being .05.

The retention for the division at the beginning of the third quarter of 1976-1977 was sixty-seven percent (67%). For 1977-1978 the retention was seventy percent (70%).

Even though three of the five programs studied showed a definite decrease in attrition rate percentages between the two groups, the Chi Square procedure revealed that there was no significance difference.

It was expected that the evidence in favor of the O-A Program would be clearly indicated by the results of the study; however, it is well recognized, and documented, that many factors affect attrition rates. No single causal factor can be isolated and no single remedy to reduce attrition has been determined.

A number of studies have shown that advising-counseling-orientation does have a positive effect on reducing attrition rates.

The results of the study and the research process itself have led to a number of recommendations which I would like to convey to you in your position as Chief Academic Officer. I am sending you a copy of the final report and I invite you to peruse it at your convenience.

My recommendations as a result of the research endeavor are as follows:

1. Evaluate and revise the Orientation Procedures of the Allied Health Division and the College as indicated by the present research results.

2. Implement a more effective student advising program which in itself will require an in-service program for faculty and staff concerning advising techniques.

3. Expand the research of attrition rates to all divisions of the College and maintain the data on a continuous basis.

4. Develop a procedure to identify and assist the dropout-prone students. Consider the usage of a Retention Index (Hammond, 1971), and Astin's (1976) worksheet for predicting chances of dropping out, and a Student Flow Model (Gilbert, 1976).

5. Determine through survey methods the reasons why students dropout of the Allied Health Division, as well as other divisions of Spartanburg Technical College. Also determine the prophylactic measures which can be incorporated into policies, practices and procedures of the college to partially solve the enrollment and retention problems.

6. Establish an Institutional Research Department to serve all divisions of the College in providing information for decision making.